# Dominic Paetsch

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Dominic Paetsch is a Swiss, American, Japanese, dedicated Computer Science student with a strong background in Mathematics and a passion for innovative technology Projects, Fitness, and Music.

#### Skills

Soft-Skills: Communication, Work Ethic, Analytical Thinking, Problem Solving, Teamwork Programming-Languages: C, Python, C++, Javascript, SQL, Verilog, HTML, CSS, Java, C# Technologies: Docker, Git, Unity, SQL Server, FPGAs, Oculus VR headset, XCode, MacOS Languages: English, Italian, German, Japanese

## Education

#### **B.Sc.** in Computer Science

Sept 2022 - Aug 2025

- ETH Zürich (Swiss Federal Insitute of Technology) | Zürich, Switzerland
- Focus Courses: Algorithms, Data Structures, Machine Learning, Web Engineering, Systems Programming, Computer Architecture, Computer Networks, Parallel Programming, Numerical Methods
- Other Courses: Discrete Mathematics, Probability, Calculus

#### **B.Sc.** in Mathematics

Sept 2020 - Aug 2022

- ETH Zürich (Swiss Federal Insitute of Technology) | Zürich, Switzerland
- Focus Courses: Calculus, Probability, Physics, Complex Analysis, Linear Algebra

## Swiss Matura

Sept 2016 - June 2020

- Liceo Lugano 1 | Lugano, Switzerland
- Focus: Mathematics, Physics

#### **Prizes**

Euler Award for best grades in Mathematics (Grade 6.0)

2020

## **Projects**

#### Non-Euclidean Impossible Spaces in Unity VR

GitHub Repository

- Created a VR experience in Unity where users explore overlapping non-Euclidean spaces using a Meta Quest headset, allowing navigation through impossible rooms and corridors.
- Tools Used: Unity, C#, Meta Quest VR Headset, Blender

#### 50+ Personal Processing Projects

GitHub Repository

- Developed 50+ projects in Processing using Java, ranging from creative explorations to engaging games and useful tools.
- Tools Used: Processing, Java

# **Autonomous Self-Balancing Robot**

2019

- Built a self-balancing robot using Arduino, 3D-printed parts, an accelerometer, and PID control for real-time stabilization.
- Tools Used: Arduino, C++, Fusion 360, 3D Printers
- Swiss Matura Final Project in Robotics (Grade: 6.0)

#### **Hobbies**

Running and Fitness: Endurance training, half-marathons, daily gym workouts.

Reading and Learning: Reading (classical) fiction/non-fiction, online-courses, learning new languages

Music: Cello and piano (playing since age 3)